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The aims of institutional research should be to: (1) provide a basis for future planning, e.g., enrollment projections and criteria for accepting applications, (2) determine the effectiveness of space utilization, such as use of each instructional room, free hours of each, comparisons of class sizes with designed room capacities, discovery of duplication of small-class projects, (3) determine relative cost of various programs--cost per student served by each department and direct classroom cost per student, (4) determine the overall cost per student, including teaching supplies and other instructional expenses, allocation of space costs, general overhead, library, plant operation and maintenance, debt service, etc., (5) determine the efficiency of each college operation in terms of administrative costs, guidance costs, library costs and seating, auxiliary costs, instructional supplies, instructional expenses, instructional equipment, tuition costs, square-foot area for general purpose classrooms and for laboratories, etc., (6) know each student and his characteristics, such as sex, age, class in college, reasons for selecting the college, enrollment plan, educational aims, family income, parents' education, etc., (7) find the right program for each student, (8) help each student succeed in reaching his goal, (9) determine the reasons for student failures, (10) measure morale of the staff and students, (11) evaluate contribution to community. (RM)

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PUTTING INSTITUTIONAL RESEARCH TO WORK IN THE SMALLER COLLEGE

BY

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The larger colleges and universities are well aware of the value of institutional research. Yet 85% of all educational institutions in the United States have enrollments below 5000 and 50% have 1000 or less. It is this overwhelming majority of small colleges which should try to improve their operations by obtaining systematically a complete knowledge of the students they serve and of the operations of the college. A research program provides the means of gathering the information which enables an administration to make the best decisions at the right time. Industry, for example, considers research so essential that it spends, on the average, 3% of its income for this purpose. Educational institutions do not, as yet, approach these expenditures.

Some of the aims of institutional research should be to

Provide the basis for future planning
Determine the effectiveness of space utilization
Determine the relative cost of various programs
DETERMine the overall cost per student
Determine the efficiency of each college operation
Know each student, his characteristics, needs and abilities
Find the right program for each student
Help each student succeed in obtaining his goal
Determine the reasons for student failures
Measure the morale of its staff and its students
Evaluate the contribution of the college to the community

There are others, of course, which a particular college might like to know, such as the areas contributing students or the high schools represented. In fact, any study which helps the administration keep pace with rapidly expanding needs and prepare itself for those needs can be justified.

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Planning for the future, obviously, involves making reasonable enrollment projections and setting a policy in regard to limited or unlimited accepatance of student applications. For enrollments, there are several factors to consider, to wit

Births in the United States leveled off in 1956 but in a particular area may have reached a peak either sooner or later.(In Florida it was 1961). Thus, the statistics for each sending area must be studied separately.

It is essential to correlate high school graduates with previous births. A growing community attracts new families and increases the number of children in school. (High school graduates, in some areas, average as much as 150% of previous births.)

With varied and more interesting high school programs, students are remaining in school longer than formerly. So, past experience may need modification, especially if sending high schools are diversifying their offerings.

Since most companies require the minimum of a high school diploma for employment, students are finding it more profitable than in the past to remain in school until graduation.

A higher percentage of high school graduates enter college if there is a junior college near their home. This has exceeded 70% in some areas.

Increasing restrictive entrance requirements of the universities will turn a larger percentage of college bound students to the smaller colleges, especially to community colleges.

An eventual easing in military manpower needs will leave more young men available as candidates for higher education.

Returning service men find the G.I. bill a great help in obtaining an education so, in coming years, many veterans will be college bound.

When future enrollments are resolved, planning must be extended to space requirements. The use of each instructional room should be studied carefully. One way to do this is to prepare a sheet for each room listing its occupancy by class and number of students for each hour of each day of the week. The results of this study will indicate immediately the free hours still available for classes and the percentage of the student stations being occupied, in each room. It will possibly show that special purpose rooms, such as laboratories, have a low utilization and could serve more than one type of program .It permits comparisons of class sizes with designed room capacities, calling attention to overcrowding or inefficent use. The study will also show if all hours of the day are scheduled effectively and could indicate the means of saving difficult-to-obtain dollars by postponing new construction.

(There should be no difficulty, for example, in occupying all instructional rooms for 40 or more hours a week and filling them to 80% of capacity.)

Another important result of the study is to present a complete picture of class sizes. Departments with a large proportion of small classes would be expected to justify them. Where there are several duplicate sections of the same subject, the college could consider if there is a real need. It may want to avoid unnecessary duplication with fewer but larger classes or by audio-visual instruction for several sections simultaneously. If rooms for larger classes are not available, the college may want to combine rooms or certainly plan for larger rooms in its future contruction.

Evidently, not all programs carry the same cost, so it helps to know what these different costs are.Usually, several departments contribute to a program, so it is desireable first to find the cost per student served by each department. The direct classroom cost per student is obtained by totaling all the credit hours of instruction by the department and converting these to full time equivalent students., then totaling the classroom costs for the department and dividing by the number of F.T.E. students.

For example, if in two semesters, a department has 9000 student credit hours, this can be reduced to 300 F.T.E. students. (15 semester hours for two semesters) If the total instructional salaries for that department are $120,000, the direct instructional cost per F.T.E.

student is $400.

Since a program may involve several departments, the total classroom cost for that program is obtained by adding together the percentage of the cost of the instruction for that program in all departments. This , of course, is the direct cost only but it provides a relative basis for comparing both departmental and program costs.

A complete cost for each department must include many other items, such as teaching supplies, other instructional expenses, allocation of space costs, and equipment required. The total cost to the college must also include a proportionate part of the general overhead expenditures, library, plant operation and maintenance, auxiliary services, debt service and any other related costs. The departmental costs, other than direct classroom instruction, may be difficult to obtain unless the college has a system of departmental accounting already in use. Since general overhead items are allocated proportionately, they do provide a measure of the total cost per student for each program.

College operations, other than those already mentioned, provide a fertile field for needed research. Some of the wide range of subjects can be related to F.T.E. students and provide the means of year to year comparisons, for instance

Administrative costs
Guidance costs
Library costs and seating
Auxiliary costs
Instructional supplies
Instructional expenses
Instructional equipment
Tuition costs
Square feet area for general purpose classrooms
Square feet area for laboratories

Some other areas of operations for study to develop valuable information for comparisons and possible administrative decisions are

Area used by each department
for instruction
for offices
for conference
Student-Faculty ratio by instructor
Student-FACULTY ratio by department
Grade distribution by instructor
GRADE DISTRibution by department
Custodial Costs per Square Feet of area
Grounds costs per acre
Sources of Revenue
Capital investment by department
Capital investment by building

Getting to know the individual student right from the start, requires obtaining complete data on his particular characteristics. A questionaire now being used for entering students at many Florida public colleges and universities asks these questions

Sex, age, class in college, reasons for the selection of the college, enrollment plan, educational aims, services desired by the student in receiving help, family income, proportion of college costs from family income, father's education, mother's education, major undergraduate field of study.

To this can and possibly should be added such other information as

High school attended, military service, marital status, entrance test scores, home residence.

After the student enters class, his accomplishments need to be considered from term to term. If his progress is unsatisfactory, a comparison with the entrance data may indicate the cause.

This periodic reveiw of student progress is extremely important for low-ability students. Perhaps for some the rigid course and hour requirements are not suitable, in which case, consideration could be given to allowing them to cover a subject at their own best learning rates.

When difficulties occur, the record should be extended to include

Hours of outside work, financial need, aptitude for studies selected, need for remedial courses, study habits.

If the small college keeps its individual records current, it is in an excellent position to help a student succeed in his educational efforts. For the entering class as a whole, the information obtained can be analysed for comparison with previous classes to permit the college to consider the necessity forchanges in curriculum, methods of operation, or student recruitment.

The record of a student who dicontinues his educational efforts is not complete until the reason for doing so is determined. A follow-up of these students could be helpful to the college in charting a future course of action. At the same time, it is important to determine the percentage of students who finally graduate and how long it takes them to succeed.

A recent study at a junior college indicates that as few as 16 [redacted]% graduate in the minium time of four terms.

A study of students placed on probation showed that 24% persisted thru additional terms to obtain their diploma.

For all groups, a comparison of entrance scores with G.P.A. earned could give a clue to the chances for success and possibly suggest steps which might reduce failures.

Determining the efficiency of college operations, involves not only a measure of good space usage and student assistance but also evaluating such intangibles as faculty and student morale. Attitudes of these groups can be gauged by means of questionaires designed to cover every pertinent phase of college life. One such questionaire used by a Florida university for faculty covered some twenty pages.

There are several ways in which to evaluate the contribution of the college to the community. One would be the response to adult courses and to the cultural offerings of the college. Another would be the dollar savings to local families in providing an education for their sons and daughters at a lower cost than at a more distant institution. A third would be the funds brought into the community from non-local sources and the expenditures in the immediate area by the college, the faculty and the students. Most important of all, however, is the number of eligible local youth attending the college.

It has been stated quite often that the prosperity of a community is directly related to its expenditures for education. So here, too, the college is making an important contribution to the welfare of the community.

The small college may consider it difficult to obtain the desired answers without undue expense. If, however, data processing equipment is available, the task is not difficult since much of the supporting data should already be in the files. A study mostly only requires programming for a print-out and once this is done it is in order for similar studies in succeeding years. If data processing is not used, considerable clerical work will be required but this should not discourage a progressive college from seeking the knowledge necessary to make it an efficent and outstanding institution.

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